

**Recovery Plan Action Status**

**Plan Name: Technical Agency Draft Recovery Plan for Fringed Campion (*Silene polypetala*)**

**Plan Status: Draft**

**Plan Date: 01-Oct-96**

**Lead Agency: USFWS**

**Lead Office: Georgia Ecological Services Field Office**

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613-9493 )

Species	Action Priority #	Action #	Action Description	Action Status	Est. Initiation Date	Est. Completion Date	Responsible Parties	Work Type	Labor Type	Action Comments
Fringed campion ( <i>Silene polypetala</i> )	1	1	Improve protection of publicly-owned populations	Not Started			U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Georgia Department of Natural Resources, Florida Natural Areas Inventory, Other owners	Work type not yet selected	Labor type not yet selected	Cost not yet determined. Some invasive species control efforts completed in 2006 at City of Chattahoochee property (Angus Gholson Nature Park). Continued effort towards invasive species control imperative at City of Chattahoochee Property, USACE properties at Lake Seminole, and at Winship Woods, Macon, GA populations. A management plan necessary to control threats from excessive deer population and associated browse at Upson County, Georgia site owned by Georgia Department of Transportation (Flint River Ravines Mitigation Tract). All public sites need long-term management plans with mechanism for continual monitoring and habitat management.

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Fringed campion (Silene polypetala)	2	10	Establish monitoring methods	Not Started			U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Potential for GADNR (Kruse) and GA ES Field Office to begin pilot demography project and develop monitoring methods in FY 08.
Fringed campion (Silene polypetala)	2	11	Monitor after delisting	Not Started			U.S. Fish and Wildlife Service, Florida Department of Agriculture and Consumer Services, including Forestry Division, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Task duration: at least 5 years
Fringed campion (Silene polypetala)	2	12	Search for additional populations	Ongoing Current	FY 2005		U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Research	Contract, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	FNAI and Wilson Baker reported in FY 07--3 new FL sites found, range extended very slightly, approx. 1 mile. Some small scale efforts pursued by GA ES Field Office in FY 2005 and FY 2006. Two new sites discovered in Ocmulgee (Shellstone Creek site in Twiggs County and Actinolite Bluff in Bibb co.). High potential for new sites to be discovered in Ocmulgee basin over amphibolite and various limestones.

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Fringed campion (Silene polypetala)	2	13	Reestablish populations: assess sites where campion was damaged or extirpated	Not Started			U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Center for Plant Conservation, Florida Natural Areas Inventory	Work type not yet selected	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Cost not yet determined. One Partners for Fish and Wildlife project ongoing since FY 05 at Macon Museum of Arts and Sciences, Bibb County, Georgia. Habitat and soils appropriate for species, site located approx. 1.0 mile from natural Silene site. FY 07 inspection of site shows promise that plants could be self-sustaining on site, if invasive species threat kept under control--43 S. polypetala individuals outplanted in FY 06. Cost is \$20,000 PFW monies.
Fringed campion (Silene polypetala)	2	14	Reestablish populations: review past introductions	Not Started			U.S. Fish and Wildlife Service, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Cost may be underestimated
Fringed campion (Silene polypetala)	2	15	Reestablish populations: determine necessity/appropriateness	Not Started			Other parties, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Cost not yet determined
Fringed campion (Silene polypetala)	2	16	Reestablish populations: arrangements with landowners	Not Started			Center for Plant Conservation, Georgia Plant Conservation Alliance (Georgia botanical gardens)	Work type not yet selected	Labor type not yet selected	Cost can be determined after task 6.3 is completed
Fringed campion (Silene polypetala)	2	17	Reestablish populations: find germplasm & conduct introductions	Not Started			U.S. Fish and Wildlife Service, Florida Department of Agriculture and Consumer Services, including Forestry Division, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Labor type not yet selected	Cost not yet determined

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Fringed campion (Silene polypetala)	2	18	Manage sites to maintain and/or enhance populations	Not Started			U.S. Fish and Wildlife Service, Florida Department of Agriculture and Consumer Services, including Forestry Division, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Labor type not yet selected	Contingent on other studies
Fringed campion (Silene polypetala)	3	19	Educate public about species	Ongoing Current	FY 2005		U.S. Fish and Wildlife Service, The Nature Conservancy, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Labor type not yet selected	Partners for Fish and Wildlife project at Macon Museum of Arts and Sciences, centered around establishment of S. polypetala populations and habitat restoration, was subject of newspaper article in Macon Telegraph and various botanical garden newsletters in 2005 or 2006.
Fringed campion (Silene polypetala)	1	2	Private landowner contacts	Ongoing Current			U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Labor type not yet selected	Most sites have up-to-date landowner contacts. Need contact information for: portion of Shellstone Creek, Twiggs Co. site--multiple landowners; Crawford County site (Musella Woods); and possibly some Chattahoochee Basin sites to determine extent of Mead Paper ownership. New and continued efforts should focus on landowners' current and future interest in maintaining protected species habitat.

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Fringed campion (Silene polypetala)	3	20	Apply laws: consultation under section 7 of Endangered Species Act	Ongoing Current	FY 2005		U.S. Fish and Wildlife Service	Work type not yet selected	Internal Field Assistance	One biological opinion prepared by GA ES Field office 01/03/2005. Impacts minimal, overall may have positive impact if conservation measures employed by FHWA and GA Dept. of Transportation. Some population augmentation planned.
Fringed campion (Silene polypetala)	3	21	Apply laws: enforce trade prohibitions	Not Started			U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Florida Department of Agriculture and Consumer Services, including Forestry Division, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Species of horticultural interest but impact from wild collections probably minimal since species easily propagated with unsophisticated techniques.
Fringed campion (Silene polypetala)	1	3	Form private landowner conservation agreements	Not Started			U.S. Fish and Wildlife Service, The Nature Conservancy, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Some sites under agricultural tax reduction easements have restrictions on subdivision of parcels but obviates landowners' incentives for formal conservation easements that would protect hardwood forest habitat(Ehrenhard tract, Taylor Co. and Fitzpatrick tract, Twiggs Co.). Results of FY 07 genetics study may assist in site protection prioritization.

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Fringed campion ( <i>Silene polypetala</i> )	1	4	Preserve genetic stock: select sites from which germplasm needs to be conserved	Ongoing Current	FY 2006	FY 2008	U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Center for Plant Conservation	Research: Genetics	Labor type not yet selected	Genetics study in progress, GAESFO expects results transmitted to USFWS in FY 2008. GESFO (Pattavina) maintaining genetic stock from many populations in FY 07 and transferred good sampling (approx. 80 plants) of Apalachicola populations' genetic diversity to Bok Garden, Lake Wales, FL (c/o Cindy Campbell). Georgia Plant Conservation Alliance may assist in ex-situ safeguarding of Flint, Ocmulgee, and Chattahoochee populations in FY 08, but ex-situ maintenance of plant stock costly with mixed success. Cost of genetics study expended by GESFO Station funds in FY 06 = \$5000 for genetic analyses materials + approx. 350 hours of F&W Biologist salary@GS-12 rate.

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Fringed campion ( <i>Silene polypetala</i> )	1	5	Preserve genetic stock: determine how many plants to conserve per site	Ongoing Current			U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, University	Work type not yet selected	Contract, Graduate Student, Species Expert	Responsible Parties: UNIV - University biologists; Academic botany/genetics departments have facilities for molecular markers work. Cost not yet determined. Preferably no more than \$7,000. Genetics study (allozyme analysis) in progress in FY 07-08, uncertain whether targets for number of plants/site for conservation can be determined from allozyme analyses. Genetic analyses somewhat coarse, with maximum of 48 plants sampled/site. The number of plants to protect per site may require fine-scale genetic analyses, but inter-population variation may be determined by FY 07-08 study and lead to informed decision making regarding number of plants to protect per site.

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Fringed campion ( <i>Silene polypetala</i> )	1	6	Preserve genetic stock: institutional arrangements for germplasm conservation	Ongoing Current	FY 2006	FY 2008	U.S. Fish and Wildlife Service, Georgia Department of Natural Resources, Center for Plant Conservation, Georgia Plant Conservation Alliance (Georgia botanical gardens)	Work type not yet selected	Labor type not yet selected	FWS PCFO has contract (initiated in FY 06) with Historic Bok Sanctuary (HBS-CPC) to collect and provide ex situ protection for pops in Florida. GAESFO transferred approx. 80 plants to Bok Garden in 5/2007, GAESFO to monitor Bok Garden's success with long-term maintenance of plant material. PCFO contract with Bok Garden includes collecting efforts and fee into National Collection. GAESFO maintaining approx. 80 plants from Georgia populations in FY 07, with expected transmittal to Southeastern botanical gardens in FY 08. Propagation of fresh, intact explants relatively easy and can be performed with little horticultural expertise. Long-term maintenance of plants poses more difficult problem because patches tend to die out--in cultivation--after a few years.

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Fringed campion (Silene polypetala)	1	7	Assess exotic pest plant threats	Ongoing Current	FY 2006		U.S. Fish and Wildlife Service, U.S. Army Corps of Engineers, Florida Department of Environmental Protection, Georgia Department of Natural Resources	Work type not yet selected	Contract, Graduate Student, Internal Field Assistance, Internal Technical Assistance, Species Expert, Volunteer	Task duration: 2 years intensive. Some cursory assessments completed during FY 06 field season by GA ES Field Office (Pattavina). Percentages of invasive cover not completed, but estimate of impending threats from invasives qualified for many sites.
Fringed campion (Silene polypetala)	1	8	Identify exotic pest plant control methods	Ongoing Current	FY 2006		U.S. Army Corps of Engineers, Florida Department of Environmental Protection, Georgia Department of Natural Resources	Work type not yet selected	Labor type not yet selected	Task duration: 1 year intensive. Partners for Fish and Wildlife Project at Macon Museum of Arts and Sciences, Bibb County, Georgia proved effective method of controlling English ivy (Hedera helix) employing cutting leaves and spraying reprints with glyphosphate (Roundup). Hedera helix currently threatening two Bibb County sites (Winship Woods, west side of Ocmulgee River) in residential area of Macon. Some limited invasive species control planned by GAESFO in FY 08. Cost of FY 08 effort estimated at approx. \$1000, for herbicide plus USFWS labor. Need to contact contractor (Lee Reed) at City of Chattahoochee Nature Park to determine effective method for controlling Ardizia at Florida sites.

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Fringed campion ( <i>Silene polypetala</i> )	2	9	Monitor populations: find responsible parties and commitments	Not Started			U.S. Fish and Wildlife Service, Other parties, Florida Department of Agriculture and Consumer Services, including Forestry Division, Georgia Department of Natural Resources, Florida Natural Areas Inventory	Work type not yet selected	Labor type not yet selected	